

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
28 March 2002 (28.03.2002)

PCT

(10) International Publication Number
WO 02/024058 A3

(51) International Patent Classification⁷:

A61B 1/00

(21) International Application Number:

PCT/IL01/00843

(22) International Filing Date:

6 September 2001 (06.09.2001)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

138632 21 September 2000 (21.09.2000) IL

(71) Applicant (for all designated States except US): MEDI-GUS LTD. [IL/IL]; 3 HaAmal Street, 84247 Beersheva (IL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): SONNENSCHEIN, Elazar [IL/IL]; 32 Rahavat Yavne, 84800 Beersheva (IL). SONNENSCHEIN, Minelu [IL/IL]; 12 Yelim Street, 85025 Meitar (IL). CHINNOCK, Randal, B. [US/US]; 53 McGilpin Road, Sturbridge, MA 01566 (US).

(74) Agents: LUZZATTO, Kfir et al.; Luzzatto & Luzzatto, P.O. Box 5352, 84152 Beer-Sheva (IL).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

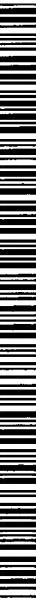
Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:

22 August 2002

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



A3

WO 02/024058 A3

(54) Title: MULTIPLE VIEW ENDOSCOPES

(57) Abstract: The present invention relates to an endoscope comprising two or more optical channels that produce two or more distinct views. The endoscope of the invention is suitable for performing various surgical procedures, including fundoplications, stapling of the stomach for obesity management, bladder neck sling procedures for incontinence management, and other procedures that may benefit from having multiple interior views. Such treatments may be performed percutaneously, or by gaining access via natural body canals such as the esophagus or urethra.

INTERNATIONAL SEARCH REPORT

Int'l Application No

PCT/IL 01/00843

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61B1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 A61B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 91 00049 A (KARL STORZ GMBH & CO.) 10 January 1991 (1991-01-10) page 17, line 6 -page 23, line 14 figures 1-6C	1
A	---	2, 4, 5
X	DE 42 41 938 A (KARL STORZ GMBH & CO.) 16 June 1994 (1994-06-16) column 7, line 41 -column 9, line 33 figures	1
Y	---	7
Y	WO 00 53102 A (GAZAYERLI) 14 September 2000 (2000-09-14) page 7, line 20 -page 9, line 11 page 19, line 13 -page 23, line 3 figures 1-2B	7
A	---	8
	-/-	

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

21 June 2002

Date of mailing of the international search report

- 07. 07. 2002

Name and mailing address of the ISA

European Patent Office, P.B. 5618 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Chen, A

INTERNATIONAL SEARCH REPORT

Int'nal Application No

PCT/IL 01/00843

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3 889 662 A (MITSUI) 17 June 1975 (1975-06-17) column 4, line 4 - line 50 ---	1,6
A	WO 89 11252 A (UNIVERSITY OF CONNECTICUT) 30 November 1989 (1989-11-30) page 19, line 3 -page 24, line 11 figures 1,2,4,5 ---	1-3
A	US 5 776 049 A (TAKAHASHI) 7 July 1998 (1998-07-07) column 5, line 3 -column 7, line 16 column 9, line 19 -column 10, line 19 figures 2A,B,9A,B ---	4
A	US 5 395 030 A (KURAMOTO ET AL.) 7 March 1995 (1995-03-07) column 5, line 56 -column 8, line 4 column 9, line 50 -column 13, line 45 column 26, line 43 -column 28, line 19 figures 1,6-14,58A-59C ----	7-10

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL 01/00843

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-6

Endoscope comprising two or more separate optical channels, where each optical channel comprises an objective lens for focusing the image on to an image sensor chip. Each objective lens is located at a different position along the length of the endoscope.

2. Claims: 7, 8-10

Endoscope and surgical stapler combination.

INTERNATIONAL SEARCH REPORT

Information on patent family members

Int'l Application No

PCT/IL 01/00843

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 9100049	A	10-01-1991	DE AT WO DE EP JP US	3921233 A1 120628 T 9100049 A1 59008855 D1 0434793 A1 4500768 T 5166787 A		14-02-1991 15-04-1995 10-01-1991 11-05-1995 03-07-1991 13-02-1992 24-11-1992
DE 4241938	A	16-06-1994	DE WO US	4241938 A1 9413190 A1 2002007110 A1		16-06-1994 23-06-1994 17-01-2002
WO 0053102	A	14-09-2000	US AU WO	6159146 A 3623300 A 0053102 A1		12-12-2000 28-09-2000 14-09-2000
US 3889662	A	17-06-1975	DE	2425827 A1		19-12-1974
WO 8911252	A	30-11-1989	US CA EP JP WO US US US US	4938205 A 1316252 A1 0416025 A1 4500321 T 8911252 A1 5109276 A 5200838 A 5172685 A 5200819 A		03-07-1990 13-04-1993 13-03-1991 23-01-1992 30-11-1989 28-04-1992 06-04-1993 22-12-1992 06-04-1993
US 5776049	A	07-07-1998	JP JP US	3220538 B2 6194580 A 5522789 A		22-10-2001 15-07-1994 04-06-1996
US 5395030	A	07-03-1995	JP	6047050 A		22-02-1994